According to Ali & Ripley (1969) the food of the White breasted Waterhen is insects and their larvae, molluscs, worms, seeds and shoots

of marsh plants. I think small fish and shrimp should be included in the diet of this bird.

BNHS BIRD MIGRATION PROJECT, P. O. Box No. 11, SHIVPURI, MADHYA PRADESH, September 17, 1986.

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## REFERENCE

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## 11. FORAGING-RELATED CHANGE IN FOREHEAD COLOUR IN KENTISH PLOVER (CHARADRIUS ALEXANDRINUS)

A solitary Kentish Plover in winter plumage observed at Kihim beach (Raigad District) on 30 August, 1986 revealed a behaviour pattern that may be adaptive for greater efficiency in capturing prey. It was seen that the extent of white on the birds' forehead, affected by the sudden erection of feathers on that part, increased abruptly when the bird stopped to collect a morsel while foraging. The 'normal' extent of white on the forehead while the bird is at rest, or moving about in a nonfeeding activity is restricted to a thin line just above the bill which extends backwards to meet the fore-edge of the eyes and more apparent in specimens is "continued unbroken as backwards as supercilium" (IND. HB. 2: 235). While engaged in foraging, the bird takes several mincing steps, often running in a zig-zag pattern; in doing this, it suddenly brakes to a stop to either 'collect' an insect on the sand surface or to probe the sand for a worm. It is at this stage, just a fraction of a second before it stops, that the feathers on the forehead are erected, revealing a large flash of pure white which extends up to the fore-crown. Once or twice in a sequence of

seven or eight such observations between 0740 and 0755 hrs., the upper edge of the white band appeared to be mottled with brown.

The plover was the only visible bird on the beach, except for a brief visit of one Brahminy Kite and two Pariah Kites (*Haliastur indus* and *Milvus migrans*) skimming over the Casuarina treetops c. 100 metres away. All the observations, made from 12-15 metres away with  $10 \times 40$  binoculars, involved the bird directly or obliquely facing the sun which was just clearing the top of the Casuarina trees. The bird was feeding at the water's edge in an incoming tide, and was facing downwind in all the observations, which rules out the possibility of the feathers being ruffled by the wind.

This behaviour may be analogous to the 'open-wing' (? wing-flashing) foraging pattern of several heron species (Ardeidae), wherein they create a shadow on the water's surface, thus attracting fish to the surface. It is however not clear how a sudden flash of white on the plover's forehead could make a worm or insect more vulnerable. On explanation suggested by Carl D'Souza, bird artist, is the possibility of the white patch having a reflec-

tive value when the bird is facing the Sun, a situation when its prey—or the entrance to the worms' tubular hole—would be in shadow. This shadow may then, to some degree be illuminated by the birds' white feathers with the Sun reflecting of them.

Examination of specimens shows that the

white feathers on the forehead of this species are much smaller and softer, and easily erected. Additional observations on a larger sample of birds in different habitats (mudflats, far from the water-line etc.) and in different lighting conditions may throw some light on this behaviour pattern.

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701, Green Acres, 61-B, Pali Hill, Bandra, Bombay - 400 050, September 17, 1986.

## 12. BROWN-HEADED GULL, *LARUS BRUNNICEPHALUS* IN IRAQ — A CORRECTION

The Brown-headed Gull Larus brunnicephalus breeds "on inland lakes of the high plateaus of central Asia from Chinese Turkestan to southern Mongolia and south to Ladakh and the eastern Himalayas" (Peters 1934). It winters mainly along the coasts of the Indian subcontinent, eastwards to Peninsular Malavsia, Thailand and Vietnam, with small numbers occurring as far east as Hong Kong (Vaurie 1965, Melville 1977). The first record of the species from the Middle East was of a single bird caught at Aden reported by Barnes (1893), who also recorded two birds shot. Meinertzhagen (1954) noted that there was "much doubt about the correctness of identification". The only other record from the Middle East was by Abdulali (1970), who noted an adult from Sheik Saad, Iraq in the collection of the Bombay Natural History Society.

While examining skins in the BNHS collection, I came across this specimen (No. 14150), which is, in fact, an adult Common Gull *Larus canus*. The prepared museum skin resembles an adult Brown-headed Gull in non-breeding plumage and it was not until I carefully exa-

mined the primary patterning that I realised that it was a Common Gull. Both species have strongly marked white mirrors on the black part of the outer primaries, but in the Brownheaded Gull there is a broad white bar across the inner part of the primaries and coverts, whereas in the Common Gull the rest of the wing is grey. The bill of the Common Gull is also proportionately shorter and stouter than in the Brown-headed Gull. In the flesh, adults of these two species are easily separated by the colour of the legs and bill—greenish yellow in the Common Gull, but blood red in the Brown-headed Gull.

The specimen in question, a female, was collected at Sheik Saad, River Tigris (approx. 32°30′N, 46°20′E) on 10 February, 1917 by P. Z. Cox & R. E. Cheesman. It is presumably the same bird as that reported (as a Common Gull) by Ticehurst *et al.* (1922), who noted that the species was "A fairly common winter visitor [to Mesopotamia], more particularly perhaps to the river [Tigris] from Sheik Saad downwards. Buxton did not observe it before December and it remained common at Amara till the end of March, when it left suddenly".